

INCORPORATING EXISTING DEVELOPMENT INTO NONPOINT PLANS: THE MISSING LINK

David B. Nichols

AUTHOR: Associate Professor, School of Environmental Design, the University of Georgia, Athens, Georgia 30602-1845.

REFERENCE: *Proceedings of the 2001 Georgia Water Resources Conference*, held March 26-27, 2001, at the University of Georgia. Kathryn J. Hatcher, editor, Institute of Ecology, the University of Georgia, Athens, Georgia.

Abstract. Current nonpoint source plans tend to focus on addressing the form of new land developments. However, any effective plan for reducing sources of nonpoint pollutants in local streams must ultimately address older, existing developments. We already know what needs to be done, using the land to filter the runoff at its source. The question becomes one of providing incentives to property owners to reduce the quantity of impervious surfaces on their properties as the land uses change over time. This paper proposes a series of methods communities may adopt to encourage solutions to this problem.

INTRODUCTION

The final report of the Metro Atlanta Chamber of Commerce's Clean Water Task Force states the problem clearly. "In the Metro Atlanta Region, over 1000 miles of rivers and streams fail to meet state water quality standards, and many waters remain to be tested. Stormwater runoff is the major cause of these water quality impairments... Eighty percent of the impaired waters are due to stormwater runoff. (Metro Atlanta)

As urban areas sprawl further from their urban core, they leave behind older suburban areas with underutilized developments. Older strip shopping centers, office buildings, malls, even automobile dealerships lie vacant or occupied by uses far different from those for which the sites were originally designed. These changes frequently result in far fewer needs for space and parking. As a result, these older developments contain huge amounts of impervious surfaces that are no longer required for their current use. Yet with every rain event, they are directing pollutants into nearby streams.

Current nonpoint source plans tend to focus on addressing the form of new land developments. However, any effective plan for reducing sources of nonpoint pollutants in local streams must ultimately address these older, existing developments. We already know what needs to be done. The question becomes one of providing incentives to property owners to reduce the

quantity of impervious surfaces on their properties as the land uses change over time. Current planning practice is more concerned with promoting new development and less with regulating its aftermath. Planners in the future must develop innovative means to address the sources of nonpoint pollution from existing development.

BACKGROUND

The problems associated with sprawling patterns of land use are many and well-documented. Excessive fuel consumption and loss of personal time due to commuting, required use of the automobile for all household trips, air pollution, increased time required for emergency response personnel to reach victims are a few of the well-known problems. In recent years, the planning profession has realized that another aspect of sprawl has left its imprint upon urban areas, recently constructed buildings being vacated as the growth moves further into the rural countryside.

"Retail sales growth has been slipping in recent years. The industry's response has been to compensate for stagnant sales in their existing stores by opening more stores. As of 1998, there were 19 square feet of retail space for every American - a 30 percent increase since 1986" (Jossi). Of the five billion square feet of retail space in the United States, half a billion stands empty, the equivalent of more than four thousand dead shopping malls (Moe).

Communities are beginning to focus on solutions to these new aspects of sprawl by considering ordinances to address the problem. Peachtree City has considered adopting ordinances to enable property landlords to re-lease vacant space immediately after a retailer leaves and to limit the size of new retail structures (Lewis). Other communities are considering requirements that merchants post a demolition bond that would be used to destroy the store if it were vacated (Jossi). What has not been considered up to now is that in addition to simply being vacant spaces in our suburbs, these underutilized commercial developments are major contributors to stormwater runoff and nonpoint pollution of local

streams.

Only in recent years have planners realized the impacts of urban development upon local streams and begun to consider ways to minimize the impacts. The best management practices championed by Thomas Schueler and the modifications to land development ordinances (School of Environmental Design) were intended to address new development, not the retrofit of existing development. Yet, as pointed out by the Clean Water Initiative Task Force, in order to achieve water quality goals for local streams, the runoff from existing sources must be addressed.

We already know what to do in existing developments to help reduce the impact of the runoff: get the water into contact with the soil at or near the source. Many of the ideas proposed for new development would also be suitable for the retrofit of existing projects. Such things as reducing the quantity of impervious parking, providing pervious filter strips and infiltration trenches, and, if space allows, the use of extended detention basins could all reduce the impacts of existing development sites. The question becomes how to provide incentives for the property owner to finance these changes.

METHODS

Policies for landlords to retrofit their properties to reduce the quantity and/or improve the quality of stormwater runoff generated fit into two broad categories: punitive and incentive-based. Each community will need to determine the course of action that will best suit their own location and populace. Many communities may choose to use a combination of policies.

Regardless of the method of action the community chooses, one of the first courses of action should be staffing an office charged with educating the public regarding the effects of stormwater runoff upon local streams. Personnel who can explain what the community is doing and why are more likely to solicit cooperation among the property owners and citizens.

Punitive Policies

Punitive policies tend to punish property owners for large quantities of impervious surfaces, but they may also provide some incentives to make changes. Punitive measures may include such things as stormwater utility fees. The proper use of pollution fees is not to raise revenue, but to internalize the costs of pollution and lead

to gains in abatement measures (Levy)

Commonly, stormwater fees are based upon the average coefficient of runoff for each parcel of land. Therefore, property owners who reduce the quantity of impervious surfaces or provide some type of stormwater control device on their property may see their fees reduced. Fees collected may be used to build regional transmission lines to transport the collected water to central treatment facilities (Nelson).

Stormwater fees have become more common in the past decade, although they are still quite rare in Georgia. Past history indicates that they face a good deal of opposition and legal challenges during their establishment. However, a recent survey conducted for the Metro Atlanta Chamber of Commerce indicated that over 70 percent of Georgians would willingly pay higher taxes to solve water quality problems (PR Newswire).

Incentive Policies

Communities have offered financial incentives for many years in an effort to induce new economic development. These incentives are commonly used to attract investment in specific targeted areas. Policies to attract investment may involve subsidies and loosening of regulations that make investment more attractive to individuals and firms. The desirability of greater investment is widely accepted, so these efforts encounter little opposition (Peterson).

Incentive policies have traditionally been used to attract new development rather than the retrofit of existing properties. Cobb County reported that an incentives ordinance, adopted in 1993, was "primarily responsible" for attracting an estimated \$500 million in economic impact to the county (Moon). Communities may find that the innovative use of such incentives may be one of the best tools to address urban runoff. Policies may include such practices as partial or complete abatement of property and inventory taxes, and waivers of business, plan review, and building permit fees. Financial consultants can offer recommendations on the extent of the incentives and the period of time in which they may be offered in order to avoid creating financial hardship on the community. As with incentives offered for new economic development, targeting specific areas within the community for a specific period of time may also be desirable.

Tax Structure

A third method that communities may consider

involves revamping their property tax system. The primary form of property taxation in Georgia is based upon what is termed, 'market value', in which the land is assessed at its highest and best use, regardless of its current use. Market value taxation frequently discourages economic improvements to underutilized urban properties by assessing them at lower rates as new development sprawls outward. Under a market value system, property owners have little incentive to redevelop their property since the tax rate is lower for a site with vacant or underutilized structures as is the case in many older urban areas.

Many states have introduced 'use value' taxation in which the property tax rate is based upon the current use of the land, regardless of surrounding uses. Use value taxation was introduced as a method to preserve agricultural and forested land by reducing the property tax burdens of the land. As with a market value system, there is little incentive to reinvest in an underutilized property under a use value system.

An alternative form of taxation is termed 'site value' taxation in which the land itself is taxed, but not the structures that are built on the property. The value of the land is derived from its location and proximity to public improvements such as utilities and roads and to other nearby improvements, termed socially-created-value, that make a property desirable (Kunstler). The theory is that by basing property tax values on the site, owners of underutilized properties in urban areas will have to develop and/or market their property in such a way as to produce enough wealth to justify holding the property.

While a site value system may not cause an owner to retrofit his or her property to reduce the stormwater runoff, it may cause the overall development pattern of a community to become more condensed, thus saving pristine areas from being developed and contributing to the nonpoint pollution problems.

CONCLUSIONS

Addressing the retrofit of older urban and suburban developments to reduce the impacts these properties have upon stream water quality is a new and untested area of urban planning and design. Yet, it is an area that must soon be addressed by urban communities across Georgia in order to meet future stream water quality standards. To fail to do so may mean economic hardships in the form of fines or restraints on future

business and residential growth.

There does not appear to be any single magical formula that will work for all communities. In order to adequately address the problem will require coordination between several diverse fields of expertise such as land planners, designers, financial consultants, and environmental experts.

The 2007 Georgia Water Resources Conference may be filled with papers in which representatives explain how their own communities developed and implemented plans to address this problem. Until then, civic leaders and elected representatives with help from experts in other fields must begin the discussion. While this paper offers no firm solutions, perhaps it will begin to get the effort moving forward.

LITERATURE CITED

- Jossi, Frank. "Rewrapping the Big Box". *Planning* Vol. 64 No. 8. August, 1998. pp.16-18.
- Kunstler, James Howard. *Home from Nowhere: Remaking Our Everyday World for the Twenty-First Century*. Simon and Schuster. New York. 1996.
- Levy, John. *Contemporary Urban Planning*. Prentice Hall. Upper Saddle River, NJ. 1997.
- Lewis, Sonja. "Peachtree City Considering an Answer to Big Box Blight". *Atlanta Journal-Constitution*. October 16, 2000. p.B4.
- Metro Atlanta Chamber of Commerce. "Final Report of the Clean Water Initiative". Nov., 2000
- Moe, Richard and Carter Wilkie. *Changing Places: Rebuilding Community in the Age of Sprawl*. Henry Holt & Company, New York. 1997.
- Moon, Virgil J. and Tom Majors. "Developing and Economic Incentives Ordinance in Cobb County, Georgia. *Main Street Renewal: A Handbook for Citizens and Public Officials*. Roger Kemp, editor. McFarland and Company. Jefferson, NC. 2000.
- Nelson, Arthur C. *System Development Charges for Water, Wastewater, and Stormwater Facilities*. Lewis Publishers. New York. 1995.
- Peterson, Paul. *City Limits*. University of Chicago Press. Chicago. 1981.
- Press Release Newswire. "Georgians Place Water Quality Among State's Top Concerns". <http://waterindustry.org/Water-Facts/water-costs-5.htm>. November 6, 2000.
- School of Environmental Design, 1997. *Land Development Provisions to Protect Georgia Water Quality*. Georgia Department of Natural Resources Environmental Protection Division.